



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,083	04/28/2005	Thuy-Phuong Le	2002P03505WOUS	2307
28524 7590 01/08/2009				
SIEMENS CORPORATION				
INTELLECTUAL PROPERTY DEPARTMENT				
170 WOOD AVENUE SOUTH				
ISELIN, NJ 08830				
EXAMINER				
NILANONT, YOUAPAORN				
ART UNIT		PAPER NUMBER		
2446				
MAIL DATE		DELIVERY MODE		
01/08/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/533,083

**Applicant(s)**

LE ET AL.

**Examiner**

YOUAPORN NILANONT

**Art Unit**

2446

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

### **Status of Claims:**

Claims 8-23 are pending in this Office Action.

Claims 8, 9, and 23 are amended.

The objection to the abstract is withdrawn based on applicant's amendments.

The 35 U.S.C. 112, second paragraph rejection is withdrawn based on applicant's amendment to claim 9.

### ***Response to Arguments***

1. Applicant's arguments filed 10/15/2008 have been fully considered but they are not persuasive. The reasons are set forth below.

### **Applicant's invention as claimed:**

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8, 10-11, 13, 15, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al. (U.S. 2001/0034759) in view of SGI (Techpubs Library "IRIX Admin: Networking and Mail").

4. **With respect to claim 8**, A method for interchanging data between an external device (Chiles et al. Figure 4 "Host System 430") and applications installed on a plurality of network elements (Chiles et al. [0011] "client device having computer software that enables the client devices... to communicate with the host system") of a packet-switching network (inherently implied by the use of TCP/IP protocol by the client device [0060] in Chiles et al.) using a tunnel connection (Chiles et al. Abstract "communication tunnel" and [0058] "Layer Two Tunneling Protocol"), wherein each network element is connected to a network node device (Chiles et al. Abstract "The client devices are typically connected to the home gateway device"), and wherein the network node device is involved in the tunnel connection (Chiles et al. [0063] "The home gateway device uses L2TP to tunnel the PPP traffic from each client PPPoE session to the host system"), the method comprising:

assigning to the network node device a globally unique address (Chiles et al. [0087] Lines 17-21 and [0088] Lines 6-8 "IP address" from the host system) so that the network node device forms a network-end terminal point of the tunnel connection when a plurality of network elements jointly use the tunnel connection, wherein all data are routed through the network node device (Chiles [0070] Lines 13-16 and [0063] Lines 4-10) and wherein the network node device is a terminal point of the tunnel connection (a NAT enabled router of Chiles is known in the art to be a terminal point of the tunnel connection in the views of the external networks).

If the network element requires a global address for executing an application, the Chiles reference discloses how the network element is assigned a global address (Chiles et al. [0096] Lines 12-16). However, where the Chiles reference does not teach, the SGI reference teaches a method of assigning to a network element a globally unique address so that the network element forms a network-end terminal point of the tunnel connection when the network element requires a global address for executing an application, and when the tunnel connection is exclusively used by the network element (See SGI "Setting Up Tunnels to Support Multicast Packets" and Figure 3-2), and wherein the network node device is a data-routing entity of the tunnel connection (See SGI Figure 3-2 "Router 1" and "Router 2").

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have combined the teachings of SGI reference together in a device taught by Chiles reference in order to be able to support Legacy network hardware systems as well as newer network devices.

5. **With respect to claim 10**, the Chiles and SGI references teach the limitations of claim 8 in which claim 10 is depending upon as noted above. The Chiles reference further teaches, the network elements are computers (Chiles et al. Figure 4 "Window PC" 405a) and the external device (Chiles et al. Figure 4 "Host System" 430) is an Internet service provider (Chiles et al. [0007] Lines 5-6) connected by a DSL modem (Chiles et al. Figure 4 "xDSL Modem" 420d).

6. **With respect to claim 11**, the Chiles reference further teaches the computers as claimed in claim 10 are Personal Computers (Chiles et al. Figure 4 "Windows PC" 405a).
7. **With respect to claim 13**, in addition to limitations of claim 8, in which claim 13 is depending upon, which are taught by the Chiles and SGI references, the Chiles reference teaches the network elements have associated local addresses which are unique only in the packet-switching network (Chiles [0085] Lines 1-3 and [0086] Lines 1-4).
8. **With respect to claim 15**, the Chiles and SGI references teach limitations as claimed in claim 10, in which claim 15 depends on. In addition, the Chiles reference further teaches the network elements have associated local addresses which are unique only in the packet-switching network (Chiles Figure 12 "LAN Address", [0085] Lines 1-3, and [0086] Lines 1-4).
9. **With respect to claims 20 and 21**, the combination of Chiles and SGI disclosures teach the network node device that is a terminal point or a data-routing entity of the tunnel connection as noted above. Therefore, it is inherent the device resulted from this combination is capable of performing as "a terminal point" or "a data-routing entity" of the tunnel connection either "alternately" or "simultaneously."
10. **With respect to claims 22**, the combination of Chiles and SGI teachings obviously implies that the network node device is a terminal point or a data-routing entity of a plurality of tunnel connections: tunnel connections that terminate at the

network node device as taught by the Chiles reference and tunnel connections that terminate at the network elements as taught by the SGI reference.

11. **With respect to claim 23**, the Chiles reference discloses a network node device (Chiles et al. Figure 4 "Home Gateway Device" 415) involved in interchanging data using at least one terminal connection (Chiles et al. Abstract "communication tunnel" Lines 11-14) between an external device (Chiles et al. Figure 4 "Host System" 430) and applications installed on a plurality of network elements (Chiles et al. [0011] Lines 1-5) of a packet-switching network (inherently implied by the used of TCP/IP [0060] in Chiles reference), wherein

each network element is connected to a network node device (Chiles et al. Figure 4 client devices 405), wherein

a network-end terminal point of the tunnel connection has a uniquely allocated global address (Chiles et al. [0089] Lines 1-4, [0087] Lines 17-21, and [0088] Lines 5-7), wherein

the network node device forms the network-end terminal point of the tunnel connection (Chiles et al. [0096] Lines 14-16) if a plurality of network elements jointly use the terminal connection (Chiles et al. [0063] Lines 4-10).

If a network element requires a global address for executing an application, Chiles reference does not disclose of the network element forms the network-end terminal point of the tunnel connection when the tunnel connection is exclusively used by the network element, and all data are routed through the network node device. Rather, Chiles teaches the network element that sets up

sessions to communicate through the tunnel connection and all data are routed through the network node device (Chiles et al. [0089]).

However, the SGI document discloses the network element that forms the network-end terminal point of the tunnel connection, wherein the tunnel connection is configured to be exclusively used by the network element (SGI "Setting Up Tunnels to Support Multicast Packets" and Figure 3-2).

For the same reason as noted above, it would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have combined the teachings of SGI reference together in a device taught by Chiles reference in order to be able to support Legacy network hardware systems as well as newer network device.

12. Claims 9, 12, 14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiles et al. (U.S. 2001/0034759) in view of SGI (Techpubs Library "IRIX Admin: Networking and Mail"), further in view of Microsoft TechNet ("Microsoft Privacy Protected Network Access: Virtual Private Networking and Intranet Security").

13. **Regarding claim 9**, the Chiles and SGI references teach the limitations of claim 8, in which claim 9 is depending upon. In particular, the Chiles reference teaches the tunnel connection is a connection which operates on the basis of the L2TP tunneling protocol which transmits the data in a tunneled connection (Chiles et al. [0063] Lines 4-10), instead of a PPTP tunneling protocol as cited in claim 9. However the Microsoft document discloses of L2TP tunneling protocol as a combination of PPTP and L2F protocols (Microsoft Page 2 "Layer 2 Tunneling Protocol (L2TP)"). It would have been



obvious to one of ordinary skill in the art at the time the invention was made to have substituted PPTP protocol in place of L2TP protocol in order to provide backward compatibility for older network elements since PPTP was first delivered in 1996, 2 years before the availability of L2TP (See Microsoft "PPTP Design Goals and Overview" page 3). Furthermore, Microsoft reference teaches that PPTP tunneling protocol is simple and inexpensive to set up, and thus will continue to be a preferred choice for a certain group of customers (See Microsoft "PPTP" page 5-6)

14. **Regarding claim 12**, the Chiles, SGI, and Microsoft references teach all the limitations of claim 9 in which claim 12 depends on. Furthermore, the Chiles reference teaches the network elements are computers (Chiles et al. Figure 4 "Window PC" 405a) and the external device (Chiles et al. Figure 4 "Host System" 430) is an Internet service provider (Chiles et al. [0007] Lines 5-6) connected by a DSL modem (Chiles et al. Figure 4 "xDSL Modem" 420d).

15. **Regarding claim 14**, the Chiles, SGI, and Microsoft references teach all the limitations of claim 9 in which claim 14 depends on. In addition, the Chiles reference teaches the network elements have associated local addresses which are unique only in the packet-switching network (Chiles Figure 12 "LAN Address", [0085] Lines 1-3, and [0086] Lines 1-4).

16. **Regarding claim 17**, the Chiles, SGI, and Microsoft references teach all the limitations of claim 9 in which claim 17 depends on. In addition, the Chiles reference teaches the network node device is a router (Chiles et al. "Home Gateway Device") which has an entity for setting up and operating a tunnel connection (Chiles et al. Figure

13 "L2TP Concentrator" 1319). However, the Chiles reference uses L2TP tunnel connection instead of PPTP tunnel connection as used by the claimed invention. For the same reasons taught by the Microsoft document as noted above, it would have been obvious to one of ordinary skill in the art at the time of the invention to set up a PPTP tunnel connection using the PPTP tunneling protocol instead of L2TP tunneling protocol.

17. **Regarding claim 18**, the Chiles, SGI, and Microsoft references teach all the limitations of claim 10, in which claim 18 depends on. Furthermore, the Chiles reference teaches the network node device is a router which has an entity for setting up and operating a tunnel connection (Chiles et al. "Home Gateway Device" functions as a router and Figure 13 "L2TP Concentrator" 1319). However, the Chiles reference uses L2TP protocol instead of PPTP protocol. For the same reasons taught by the Microsoft document as noted above, it would have been obvious to one of ordinary skill in the art at the time of the invention to set up a PPTP tunnel connection using the PPTP tunneling protocol instead of L2TP tunneling protocol.

18. **Regarding claims 16 and 19**, the Chiles, SGI, and Microsoft references teach all the limitations of claims 8 and 13 in which claims 16 and 19 depend on, respectively. Furthermore, the Chiles reference teaches the network node device is a router which has an entity for setting up and operating a tunnel connection (Chiles et al. "Home Gateway Device" functions as a router and Figure 13 "L2TP Concentrator" 1319). However, the Chiles reference uses L2TP protocol instead of PPTP protocol. For the same reasons taught by the Microsoft reference as noted above, it would have been

obvious to one of ordinary skill in the art at the time of the invention to set up a PPTP tunnel connection using the PPTP tunneling protocol instead of L2TP tunneling protocol.

### **REMARKS**

Applicant has amended claims 9 to overcome 35 U.S.C. 112, second paragraph rejection. Furthermore, applicant has amended and argued claims 8 and 23.

#### **The Applicant Argues:**

Regarding claim 8, the Chiles reference teaches the first configuration of applicant's invention while the SGI reference teaches the second configuration of the same invention and that one skilled in the art would not combine the teachings of Chiles and SGI references.

Further, regarding claim 8, the SGI reference does not teach "a method of...and forming the network-end terminal point of the tunnel connection by a network element..." and "the tunnel connection is exclusively used by the network element..."

Regarding claim 23, it would not be obvious to reconstruct the claimed invention from the separate teachings of Chiles and SGI references.

#### **In response,**

The examiner has carefully considered the arguments above but maintains the rejections because the references teach the limitations as claimed.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is known in the art at the time of the invention that there exist widely used, before 1990, systems called Legacy network systems, which required own addresses and direct tunneling. The Legacy systems were in used at the time of the invention and are still in used today because some companies try to avoid the cost of replacing them. Therefore, it would have been obvious to one skilled in the art to have included the option of allowing a direct tunneling between the network elements and the external device verses having a tunnel that stops at the network node device, in order to provide support for older network elements that use Legacy protocols.

Regarding certain limitations of claim 8, the SGI reference teaches "a method of...and forming the network-end terminal point of the tunnel connection by a network element..." (SGI figure 3-2). The "Host" in "Net A" is a workstation running IRIX which can be configured as the endpoint of a tunnel as stated in SGI reference and therefore reads on the limitation of claim 8. Similarly, "Host" in "Net C" is also another endpoint of the tunnel.

Additionally, SGI reference teaches "the tunnel connection is exclusively used by the network element". SGI reference teaches tunnels between workstations in networks and by definition of tunnel connection, the tunnel is exclusively used by the two parties

at each end of the tunnel. It would have been obvious to one of ordinary skill in the art at the time of the invention to have understood that the tunnel in SGI reference (figure 3-2) is exclusively used by the two Hosts in Net A and Net C.

### ***Conclusion***

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **YOUPAPORN NILANONT** whose telephone number is (571) 270-5655. The examiner can normally be reached on **Monday through Thursday and alternate Friday at 7:30 AM - 5 PM**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeffrey C. Pwu** can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. N./  
12/16/2008  
Examiner, Art Unit 2446

/Jeffrey Pwu/  
Supervisory Patent Examiner, Art Unit 2446